

GENERIC · POWERTRAIN

P0DC6

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0DC6

Hybrid/EV Battery Cell Balancing Circuit G Stuck Off

P0DC6 indicates that the battery management system has detected a failure in the cell balancing circuit for a specific group of cells, labeled 'G', where the circuit remains stuck in the off state. The computer expects to see voltage changes or current flow when balancing is commanded, but it sees none, meaning the balancing function for that cell group is inoperative.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the hybrid/EV system warning light or service vehicle soon message
- Often no symptoms besides the warning light, especially if the imbalance is minor
- Reduced electric-only range or lower fuel economy as the battery pack becomes unbalanced
- Possible reduced power output or limp mode if the imbalance becomes severe
- In some cases, the vehicle may fail to start or enter ready mode if the battery management system detects a critical fault

Common causes, most likely first

- 1 Open or shorted cell balancing circuit wiring or connector for the 'G' cell group
- 2 Failed cell balancing resistor or transistor within the battery management system
- 3 Faulty battery management system (BMS) control module
- 4 Internal battery pack fault, such as a weak or failing cell in the 'G' group
- 5 Corrosion or damage to the balancing circuit board or harness
- 6 Software glitch in the BMS requiring recalibration or update



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, and verify the P0DC6 is current and not history
- 2 Inspect the battery pack wiring harness and connectors for the 'G' cell group for signs of damage, corrosion, or loose pins
- 3 Perform a resistance test on the balancing circuit wiring and compare to manufacturer specifications
- 4 Check the cell balancing resistor and transistor for continuity and proper operation using a multimeter
- 5 If the BMS is accessible, test the balancing control signal from the BMS to the circuit
- 6 Repair or replace any faulty wiring, connectors, or components in the balancing circuit
- 7 Clear codes and perform a battery pack balancing procedure or drive cycle to verify the repair

Cell balancing faults often misdiagnosed

- A stuck-off balancing circuit may not trigger noticeable symptoms until the battery pack becomes significantly unbalanced, so drivers often ignore the warning light until performance degrades.
The 'G' designation refers to a specific cell group, but some manufacturers use different labeling; always consult the service manual for the exact cell group identification.
- A weak cell in the 'G' group can mimic a balancing circuit fault, so testing individual cell voltages is crucial before replacing the BMS or circuit components.
- Intermittent faults can be caused by a loose connector that only acts up under certain temperatures or vibrations, so a wiggle test while monitoring live data is valuable.
Replacing the BMS without verifying the balancing circuit can lead to repeat failures if the root cause is a shorted resistor or damaged wiring.

Can I keep driving with P0DC6?

It is generally safe to continue driving with this code if the vehicle operates normally, but avoid heavy acceleration or long trips that heavily drain the battery until the fault is repaired. If the warning light is accompanied by reduced power or other warnings, seek service promptly.

Tools that help

- OBD-II scan tool with hybrid/EV battery data capability
- Digital multimeter
- Service manual with wiring diagrams
- Insulation tester (megohmmeter)
- Battery pack lifting equipment (if access requires)



Reading P0DC6

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- D** Hybrid propulsion.
- C6** The exact fault within that area.

Often seen with

P0AFA Hybrid/EV Battery System Voltage Low · **P0B24** Hybrid/EV Battery A Voltage Unstable · **P0DC5** Hybrid/EV Battery Cell Balancing Circuit G Stuck On · **P0DC7** Hybrid/EV Battery Cell Balancing Circuit G Range/Performance

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0dc6/>

